

REMARKS

Claims 1-6 are pending in the present application.

The Examiner is reminded that that present invention provides, *inter alia*, a laminated film for stretch wrapping comprising at least three layers, wherein the laminated film has both surface layers comprising, as a main component, component (A) which is an ethylene polymer, and has at least one intermediate layer formed of a mixed resin layer comprising, as a main component, a resin composition containing the following component (B) in an amount of 30 to 75 % by weight:

a polypropylene resin having controlled stereoregularity satisfying the following requirements (1) and (2):

(1) a meso pentad fraction [mmmm] as determined from a ^{13}C -NMR spectrum is 0.2 to 0.7, and

(2) a racemic pentad fraction [rrrr] and (1-mmmm) satisfy the following relation:

$$[\text{rrrr}/(1\text{-mmmm})] \leq 0.1;$$

the following component (C) in an amount of 20 to 60 % by weight:

a crystalline polypropylene resin having a crystal melting peak temperature of 120°C or higher; and

the following component (D) in an amount of 5 to 30 % by weight:

at least one resin selected from the group consisting of petroleum resin, terpene resin, coumarone-indene resin, rosin resin, and hydrogenated derivatives thereof (Claim 1).

Applicants again submit that the cited art fails to disclose or suggest such a laminated film for the reasons given below. Reconsideration of the outstanding rejections is respectfully requested.

The rejection of Claims 1, 2, and 4-6 under 35 U.S.C. §103(a) over US 5,888,640 (Marotta et al) in view of WO 2001/096490 (Kijima et al, US 2004/0039117 taken as translation) is respectfully traversed.

Marotta et al disclose a metallized uniaxially heat-shrinkable, biaxially oriented, multilayer film having a polypropylene-containing-core layer, said core layer comprising isotactic polypropylene and a modifier which reduces the crystallinity of the propylene containing core layer (see column 3, lines 1 to 7).

Marotta et al disclose a modifier of polyolefins other than isotactic polypropylene which can be selected from the group consisting of atactic polypropylene, syndiotactic polypropylene, ethylene-propylene copolymer, propylene-butene-1 copolymer, ethylene-propylene-butene-1 terpolymer, polybutene-1, polyethylene and linear low density polyethylene (see column 3, lines 33 to 39).

Marotta et al also disclose the core layer comprising polypropylene preferably isotactic polypropylene, mixed with 2 to 10 wt.% of ethylene-propylene copolymer moodier containing 2 to 7 wt. % ethylene, the balance being propylene and having crystalline melting point of about 125 to 150°C (see column 4, lines 22 to 31).

As described in Marotta et al, a shrink film's distinguishing characteristic is its ability upon exposure to some level of heat to shrink or, if restrained, to create shrink tension within the film. This ability is activated by the packager when the wrapped product is passed through a hot air or hot water shrink tunnel. The resulting shrinkage of the film results in an aesthetically pleasing transparent or opaque wrapping which conforms to the contour of the product while providing the usual functions required of packaging materials such as protection of the product from loss of components, pilferage, or damage due to handling and

shipment. Typical items wrapped in polyolefin shrink films are toys, games, sporting goods, stationery, greeting cards, hardware and household products, office supplies and forms, foods, phonograph records, and industrial parts (see column 1, lines 25 to 39).

The manufacture of shrink films requires relatively sophisticated equipment including extrusion lines with “racking” capability, irradiation units when cross-linking is desired, tenter frames, mechanical centerfolders, and slitters. “Racking” or “tenter framing” are conventional orientation processes which cause the film to be stretched in the cross or transverse direction and in the longitudinal or machine direction. The films are usually heated to their orientation temperature range which varies with different polymers but is usually above room temperature and below the polymer’s melting temperature. After being stretched, the film is rapidly cooled to quench it thus freezing the molecules of film in their oriented state. Upon heating, the orientation stresses are relaxed and the film will begin to shrink back to its original, unoriented dimension (see column 1, lines 40 to 54).

However, as described above, Marotta et al do not disclose or suggest the laminated film for stretch wrapping comprising at least three layers, wherein the laminated film has at least one intermediate layer comprising a resin composition containing a specific amount of components (B), (C) and (D).

According to the definition of “Shrink package films” of JIS Z 0108-1990 (English version of which is **submitted herewith**), the shrink package film is also defined as being a film made by drawing and cooling plastics in one direction or longitudinal, lateral two directions at a temperature a little lower than the softening point and given shrinkage characteristic by reheating.

On the other hand, according to the definition of “Stretch package film” of JIS Z 0108-1990, the stretch package film is defined as being a rubber state elastic film for

packaging by clamping with utilizing rubber elasticity by winding on a substance with drawing at room temperature.

The name of stretch packaging is due to the fact that packaging is performed by stretching a film not shrinking a film.

As discussed above, an object and a method of use of a stretch wrapping film and a shrink package film are quite different. Naturally, the properties that are required for a stretch wrapping film and a shrink package film are quite different, so it is evident that "a stretch. wrapping film" is not a preamble intended use limitation but an essential limitation to distinguish the shrink package film and the stretch wrapping film of the present invention.

To this end, the Examiner is reminded that the determination of whether a preamble limits a claim is made on a case-by-case basis in light of the facts in each case; there is no litmus test defining when a preamble limits the scope of a claim. *Catalina Mktg. Int'l v. Coolsavings.com, Inc.*, 289 F.3d 801, 808, 62 USPQ2d 1781, 1785 (Fed. Cir. 2002). Further, "If the claim preamble, when read in the context of the entire claim, recites limitations of the claim, or, if the claim preamble is 'necessary to give life, meaning, and vitality' to the claim, then the claim preamble should be construed as if in the balance of the claim." *Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298, 1305, 51 USPQ2d 1161, 1165-66 (Fed. Cir. 1999).

During examination, statements in the preamble reciting the purpose or intended use of the claimed invention must be evaluated to determine whether the recited purpose or intended use results in a structural difference (or, in the case of process claims, manipulative difference) between the claimed invention and the prior art. If so, the recitation serves to limit the claim. See, e.g., *In re Otto*, 312 F.2d 937, 938, 136 USPQ 458, 459 (CCPA 1963) Indeed, a "preamble may provide context for claim construction, particularly, where ... that

preamble's statement of intended use forms the basis for distinguishing the prior art in the patent's prosecution history." *Metabolite Labs., Inc. v. Corp. of Am. Holdings*, 370 F.3d 1354, 1358-62, 71 USPQ2d 1081, 1084-87 (Fed. Cir. 2004). Applicants submit that, as is clear above, the limitation "for stretch wrapping" is not a preamble intended use limitation but an essential limitation to attain the present invention.

At no point do Marotta et al disclose or suggest a *laminated film for stretch wrapping* comprising at least three layers, wherein the laminated film has both surface layers comprising, as a main component, component (A) which is an ethylene polymer, and has at least one intermediate layer formed of a mixed resin layer comprising, as a main component, a resin composition containing the following component (B) in an amount of 30 to 75 % by weight:

a polypropylene resin having controlled stereoregularity satisfying the following requirements (1) and (2):

(1) a meso pentad fraction [mmmm] as determined from a ^{13}C -NMR spectrum is 0.2 to 0.7, and

(2) a racemic pentad fraction [rrrr] and (1-mmmm) satisfy the following relation:

$$[\text{rrrr}/(1\text{-mmmm})] \leq 0.1;$$

the following component (C) in an amount of 20 to 60 % by weight:

a crystalline polypropylene resin having a crystal melting peak temperature of 120°C or higher; and

the following component (D) in an amount of 5 to 30 % by weight:

at least one resin selected from the group consisting of petroleum resin, terpene resin, coumarone-indene resin, rosin resin, and hydrogenated derivatives thereof, as defined in Claim 1 of the present application.

Kijima et al disclose a polyolefin resin for hot melt adhesives comprising a propylene polymer [I] in an amount of 20 to 99 mass %, and an adhesive capacity applying resin [II] in an amount of 80 to 1 mass %, wherein the propylene polymer [I] satisfies the following requirements of:

- (1) a meso pentad fraction (mmmm) is from 0.2 to 0.6; and
- (2) a racemic pentad fraction (rrrr) and (l-mmmm) satisfy the following

relation:

$$[\text{rrrr}/(\text{l-mmmm})] \leq 0.1 \text{ (see claim 1).}$$

Kijima et al also disclose a rosin resin, a terpene resin, a petroleum resin, and those hydrogenated products as the adhesive capacity applying resin [II] (see at page 3, paragraph [0045]).

However, Kijima et al only disclose hot melt adhesives comprising two component of a propylene polymer [1] in an amount of 20 to 99 mass % corresponding to the component 03) of the present invention, and an adhesive capacity applying resin [II] in an amount of 80 to 1 mass % corresponding to the component (D) of the present invention.

Kijima et al as well as Marotta et al do not disclose or suggest at all, the laminated film for stretch wrapping comprising at least three layers.

Moreover, Kijima et al do not disclose or suggest the laminated film for stretch wrapping comprising at least three layers, wherein the laminated film has at least one intermediate layer comprising a resin composition containing three components of the component (B) in an amount of 30 to 75 % by weight, the component (C) in an amount of 20 to 60 % by weight and the component (D) in amount of 5 to 30 % by weight.

In the response filed on October 10, 2008, Applicants submitted that in the present invention, when the meso pentad fraction [mmmm] of the polypropylene resin having

controlled stereoregularity serving as component (B) is (1) in excess of 0.7, flexibility is reduced, thus, a film formed from the composition is difficult to satisfy characteristics required for serving as a stretch wrap film such as wrapping efficiency, wrapping finish, elastic recovery, and bottom sealing property, when the meso pentad fraction [mmmm] is (1) less than 0.2, crystallinity is excessively lowered, thereby readily forming aggregation of feed material pellets and lowering film formability. When the ratio of racemic pentad fraction [rrrr] to (1-mmmm), $[rrrr]/(1-mmmm)$ is (2) in excess of 0.1, feed material pellets may become sticky and may be aggregated during storage.

On page 5 of the Office Action, the Examiner appears to disregard the importance of this distinction between the present invention and the cited art stating that “Applicant points to no data to support said conclusion. Furthermore, said results are expected by the skilled artisan; the skilled artisan would have known the meso-pentad functionality was proportion to crystallinity and that high crystalline materials are not flexible.” The Examiner further alleges “with regards to the ratio of racemic pentad fraction and its affect on processability, applicant has again failed to point to any data support a criticality argument. Applicants also argues the amounts of components B, C, and D in the core layer is critical by has failed to point to any data supporting said conclusion.” Thus, the Examiner alleges that the arguments are “counsel’s argument”.

Applicants disagree. The evidence of criticality to support the foregoing is provided in the specification as filed, for example, at page 9, line 15 to page 10, line 1. The Examiner is reminded that unless there is reason to doubt the objective truth of the statements contained in the specification, the specification is be taken as enabling for the full scope of the corresponding claims. *In re Marzocchi*, 439 F.2d 220, 224, 169 USPQ 367, 370 (CCPA

1971). Thus, the disclosure in the specification at , for example, at page 9, line 15 to page 10, line 1, is taken as true unless the Examiner can provide some reason for doubt.

Moreover, it cannot be overlooked that evidence of unexpected results is a secondary indicia of non-obviousness, which only need be provided where a *prima facie* case of obviousness is established. In this case, the Examiner has failed to support a *prima facie* case of obviousness. Indeed, the cited art does not disclose or suggest the laminated film having at least one intermediate layer comprising a resin composition containing a specific amounts of component (B), (C) and (D) as claimed.

Kijima et al also provide no motivation to use the polyolefin resin for hot melt adhesives for the intermediate layer of the laminated film of the present invention.

Applicants submit that there is nothing in either Marotta et al or Kijima et al that would have fairly suggested or motivated the skilled artisan to combine Marotta et al and Kijima et al and make the necessary modifications in order to practice the methodology taught and claimed in the present invention. It is self-evident that obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination. Even if such a combination were achieved, if there is no disclosure to suggest how and why the artisan should or even could modify the combined disclosures in a manner to lead to the claimed invention, then certainly obviousness can not be found.

Accordingly, the claimed invention would not be obvious in view of the combined disclosures of Marotta et al and Kijima et al.

Applicants further submit that Claim 6 further defines the properties of the laminated film for stretch wrapping comprising at least three layers, wherein the laminated film has at one intermediate layer comprising a resin composition containing three components of the

component (B) in an amount of 30 to 75 % by weight, the component (C) in an amount of 20 to 60 % by weight and the component (D) in amount of 5 to 30 % by weight.

The properties of the laminated film described in Claim 6 are *not* latent properties of the film rendered obvious by the cited art, since the cited art does not disclose or suggest the use of the resin composition containing a specific amount of components (B), (C) and (D) for the intermediate layer of the laminated film of the present invention and provide no motivation to use the resin composition containing a specific amount of components (B), (C) and (D) for the intermediate layer of the laminated film of the present invention.

Again, the Examiner states that with respect to the argued properties of Claim 6 that “counsel’s argument cannot take the place of evidence... Applicant has the burden of establishing/explaining any showing of criticality. No such evidence has been cited by applicant.” This allegation by the Examiner is off the mark because it again overlooks the fact that evidence of unexpected results is a secondary indicia of non-obviousness, which only need be provided where a *prima facie* case of obviousness is established. In this case, the Examiner has failed to support a *prima facie* case of obviousness. Indeed, as stated above, the cited art does not disclose or suggest the use of the resin composition containing a specific amount of components (B), (C) and (D) for the intermediate layer of the laminated film of the present invention and provide no motivation to use the resin composition containing a specific amount of components (B), (C) and (D) for the intermediate layer of the laminated film of the present invention.

Moreover, the argument that the Examiner appears to take issue with is as follows:

When the storage modulus (E') is less than 5.0×10^7 Pa, the film has excessive flexibility that induces small stress against deformation, resulting in unfavorable operability, poor powerfulness of the film of packed products. A film having these properties would not be suited to be a stretch film.

When the storage modulus (E') is in excess of 5.0×10^8 Pa, the film is less stretchable due to high hardness, resulting in deformation or rupture of trays.

When $\tan \delta$ is less than 0.2, restoration behavior of the obtained film is instantaneous, thus, the elongated film happens to be undesirably restored during a very short period of folding the film under the bottom of the tray, resulting in poor powerfulness of the film and in occurrence of wrinkles.

In addition, thermal melt adhesion of the film during stretch wrapping cannot be sufficiently performed, leading to poor heat-seal conditions of the bottom of tray, *i.e.*, the film at the bottom of packaged products is readily detached during the course of transportation and display.

Further, when $\tan \delta$ is in excess of 0.8, the exhibits elastic deformation, although good wrapping finish is attained. Thus, the film of packed products has weak tension against outer force, and the film on the upper side of trays is readily slackened through stacking of the packed products during transportation and display, leading to decrease in quality of the products.

The foregoing is based on, at least, page 17, line 7 to page 18, line 8 of the specification as filed. The Examiner is again reminded that unless there is reason to doubt the objective truth of the statements contained in the specification, the specification is to be taken as enabling for the full scope of the corresponding claims. *In re Marzocchi*, 439 F.2d 220, 224, 169 USPQ 367, 370 (CCPA 1971). Thus, the disclosure in the specification at , for example, at page 17, line 7 to page 18, line 8, is taken as true unless the Examiner can provide some reason for doubt.

Accordingly, in view of the foregoing, Applicants submit that the combined disclosures of Marotta et al and Kijima et al fail to render the presently claimed invention obvious.

Withdrawal of this ground of rejection is requested.

The rejection of Claim 3 under 35 U.S.C. §103(a) over US 5,888,640 (Marotta et al) in view of WO 2001/096490 (Kijima et al, US 2004/0039117 taken as translation) and further in view of US 4,127,688 (Bieler) and US 4,853,265 (Warren) is respectfully traversed.

Applicants submit that Claim 3 depends from Claim 1. Accordingly, for the reasons stated above Marotta et al and Kijima et al fail to render Claim 1 obvious. Bieler and Warren fail to compensate for the deficiencies in the disclosures of Marotta et al and Kijima et al. As such, Claim 1 and by dependence, Claim 3 is not obvious in view of the combined disclosures of Marotta et al, Kijima et al, Bieler, and Warren.

Specifically, Bieler disclose a thermoplastic film laminate in the packaging field that has a layer of polyethylene or ethylene vinyl acetate copolymer (hereinafter referred to as "EVA") and a layer of saran laminated thereto. The vinyl acetate content of the ethylene vinyl acetate copolymer layer may range from as low as 2 or 3% to as high as 25 to 30% or more depending upon the desired packaging application and in order to strengthen polyethylene or ethylene vinyl acetate copolymer layers and to render them heat shrinkable after stretch orientation it has been necessary to cross-link the polyethylene or ethylene vinyl acetate copolymer material preferably by irradiating the materials with high energy electrons (see column 2, lines 21 to 39).

However, Bieler does not disclose or suggest the laminated film for stretch wrapping comprising at least three layers, wherein the laminated film has both surface layers containing component (A), which is an EVA polymer, and has at least one intermediate layer comprising a resin composition containing the component (B), the component (C), and the component (D) described above.

More specifically, Bieler does not disclose or suggest the use of an EVA polymer in both surface layer of the laminated film comprising at least three layers composed of both surface layers and at least one intermediate layer.

Warren discloses a thermoplastic, multi-layer, heat-shrinkable packaging film having improved orientation characteristics comprising at least two layers of a copolymer of ethylene and vinyl acetate wherein the melt index of the ethylene-vinyl acetate of one layer is different from the melt index of the ethylene-vinyl acetate of the other layer about 0.3 dg/minute or more (see claim 1).

However, Warren and Bieler do not disclose or suggest the use of an EVA polymer in both surface layer of the laminated film comprising at least three layers composed of both surface layers and at least one intermediate layer.


Accordingly, the claimed invention would not be obvious in view of the combined disclosures of Marotta et al, Kijima et al, Bieler, and Warren.

Withdrawal of this ground of rejection is requested.

Applicants submit that the present application is in condition for allowance. Early notification to this effect is respectfully requested.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.
Norman F. Oblon



Vincent K. Shier, Ph.D.
Registration No. 50,552

Customer Number
22850

Tel: (703) 413-3000
Fax: (703) 413-2220
(OSMMN 08/03)